

Computed and Observed Times of Contacts of the Transit of Mercury at Castlemaine, Victoria, Lat. 37° 4' 11" S.; Long. 9^h 36^m 55^s E. By W. Bone, Esq. M.D.

(Communicated by the Secretaries.)

First External Contact.	Local mean time.
	$\begin{matrix} \text{h} & \text{m} & \text{s} \\ \text{Computed, } 19 & 53 & 18\cdot6; \text{ Observed, } 19 & 53 & 54\cdot32. \end{matrix}$
First Internal Contact.	
	$\begin{matrix} \text{h} & \text{m} & \text{s} \\ \text{Computed, } 19 & 55 & 1\cdot4; \text{ Observed, } 19 & 55 & 36\cdot92. \end{matrix}$
Second Internal Contact.	
	$\begin{matrix} \text{h} & \text{m} & \text{s} \\ \text{Computed, } 1 & 12 & 36\cdot7; \text{ Observed, } 1 & 12 & 36\cdot5. \end{matrix}$
Second External Contact.	
	$\begin{matrix} \text{h} & \text{m} & \text{s} \\ \text{Computed, } 1 & 14 & 19\cdot4; \text{ Observed, } 1 & 14 & 8\cdot8. \end{matrix}$

Taken with 4·7-inch (Wray) Equatoreal. Power used, 200. Barometer, 29·25 (1,000 feet above sea); Thermometer, shade, 71° F.
 Beading very noticeable at ingress. Observation taken for mean of beading, which was about 4^s: less noticeable at egress. The time of first external contact was most carefully noted, but shows a large difference from computed time. Sky clear at each observation.

The Satellites of Mars. By John Watson, Esq.

The evening of December 22, 1881, was very clear, and having seen from Mr. Marth's Ephemeris that both the satellites of *Mars* were favourably situated, I began at 7 P.M. to map the small stars in the neighbourhood of the planet as seen with my 12-inch Cooke Achromatic mounted equatorially in the open air. I found a power of 235 to be as good as any, and by simply hiding the planet behind the sharply-defined edge of the diaphragm of a fine Huyghenian eyepiece, the more remote *Deimos* was seen following the planet at 8 P.M., and distant about two and a half diameters of *Mars* from the edge of the primary.
 Various powers were tried up to 700 (with which this instrument works well at times), but the state of the atmosphere was such that no advantage was gained by increase of power above 235. At 8^h 40^m I saw *Phobos* for the first time preceding the planet, and distant, by careful estimate, one diameter of *Mars* from the edge of the planet's disk. Later in the evening the atmosphere turned hazy.

I send this communication because very few observations of these objects are recorded in this county, and it was a matter of interest to have watched them alternately on opposite sides of the planet, and without any special contrivance.

Vane House, Seaham Harbour :
1882, January 4.

Errata.

Vol. xlii. p. 40, *for* July 29 *read* July 31.

Vol. xlii. p. 52, heading of fourth column, *for* Parallaxic Inequality apparently corrected, *read* Parallaxic Inequality approximately corrected.

Also, in the fourth column of the table upon the same page,

opposite group 1834-1842 *for* 125.11 *read* 123.88

„ 1839-1847 „ 123.88 „ 123.67

„ 1843-1851 „ 123.67 „ 125.26

1847-1851 „ 125.26 „ 126.42